SUPPORT DOCUMENT No. 2

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

FACT SHEET
TENTATIVE ORDER NO. R9-2002-0115

WASTE DISCHARGE REQUIREMENTS for ROBERT & ELISABETH CROUCH, TRUSTEES of ROBERT & ELISABETH CROUCH TRUST and MOUNTAIN MEADOW MUSHROOM, INC., SAN DIEGO COUNTY

May 8, 2002

CONTACT INFORMATION

Regional Water Quality Control Board:

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9174 Sky Park Court
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Mountain Meadow Mushroom, Inc.

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FACILITY BACKGROUND

Mountain Meadow Mushroom Farm (hereinafter the mushroom farm) was constructed in 1953 and 1954. Additional buildings were built in 1956 by the Victor Distefano family after they acquired the farm. The current owner bought the mushroom farm in 1984. In 1991 and 1992, nine mushroom growing rooms were added to the existing 20 growing rooms at the farm. In 1993, the farm started importing used stable bedding from the Del Mar Faire and stopped importing it from Los Angeles.

DISCHARGE DESCRIPTION AND MANAGEMENT MEASURES

1. Wastewater is generated from the wharf area where stable bedding is composted to produce mushroom substrate. Water applied to the straw is collected in a sump beneath the wharf and reused in this process.

2. The wharf area is a source of both storm and non-storm water discharges. Total wharf area used for substrate production is 33,270 square feet. Required storm water retention, having the capacity to contain the runoff from a 25-year intensity, 24-hour duration storm (6" for this area) is 16,634 cubic feet. The current runoff storage area for the wharf (see Figure 1) has a capacity of only 3,382 cubic feet. Therefore, a new pond with a storage capacity of 13,184 cubic feet will be added on the south side of the property below the 5,000 cubic foot holding tank noted on Figure 1. It is labeled #6, as it is the sixth surface impoundment at this site.

3. The spent substrate, once it has been used in the mushroom-growing process and stripped of many of it nutrients, is placed in an area about 100' from the entrance of the farm for one day to three weeks. It is given to landscapers and homeowners to be used as a soil amendment. During rain, it will be tarped.

4. After the spent substrate has been removed from the growing houses, the houses are washed down and sterilized with steam. This wash water and moisture from the steam is collected by gravity flow in three concrete-lined holding tanks. From these tanks the water is pumped to the holding tank located near the wharf area. This water is used to produce new substrate material.

5. After filling the beds with substrate, the substrate is sterilized with steam before inoculating it with mycelium spores. Moisture from this operation is collected and pumped to the holding tank nearest the growing room undergoing sterilization. Moving north to south, from Growing Houses 19-27 (Figure 1), the water is pumped to Holding Tank #1. From Growing Houses 2-8, 16-24 and 9-15, the water is pumped to Holding Tank #3; some of this water is then pumped to Holding Tank #4 and some is pumped to the wharf area for substrate production. Overflow from Holding Tank #4 is pumped to Holding Tank #5. Also, some of the water from Growing Houses 9-15 is pumped to Holding Tank #5.

6. The five existing holding tanks have aeration facilities to help with odor control. The new retention pond (labeled #6 on Figure 1), described in Discharge Description 2 above will also have aeration facilities and will be located above the 100-year storm flood line. Water from the ponds will be used for production of substrate and for dust control.

7. The proposed storm water retention pond will always be empty by the first of September. Water in this pond will be removed from the pond as soon as it can be used for irrigation, dust control, and/or substrate production. Water will not be allowed to become anaerobic. The pond's dimensions are 40' by 20' by 5'.

8. A subsurface irrigation system, using leach lines in a modified drip system, will utilize any impounded water that is in excess of substrate production and dust control needs. This excess water will irrigate nursery crops, landscape screening and ground cover. Application rates will be determined with an emphasis on adequate uptake of nitrates to protect ground water from these constituents.

9. The growing house roofs all have gutters designed to handle a 6-inch 24-hour storm. This prevents roof runoff water from flowing across concrete aprons or the wharf area. This storm water runoff is not a source of pollutants in storm water discharges.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The owner of Mountain Meadow Mushroom Farm applied for waste discharge requirements in July 2001 for his existing facility. No facility expansion of use beyond that previously existing is part of the project. The facility has been engaged in mushroom farming since the early 1950s. The current scope of operations has not been expanded since construction of additional growing buildings in 1991. Category 1 exemptions to the California Environmental Quality Act, apply to the "operation, repair, maintenance, permitting, leasing, licensing or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination." CEQA Guidelines § 15301.

BASIN PLAN WATER QUALITY OBJECTIVES AND BENEFICIAL USES

The Basin Plan established the following beneficial uses of surface and ground water in the Reidy Creek Hydrologic Subarea (904.62) HSA of the Escondido Creek Hydrologic Area (904.60) HA of the Escondido Creek Watershed (904.00):

Beneficial Uses Identified In Basin Plan			
Beneficial Use		Surface Water	Groundwater
		HSA 904.62	HSA 904.62
MUN	Municipal and Domestic Supply	X	X
AGR	Agriculture Supply	X	X
IND	Industrial Service Supply	O	X
PROC	Industrial Process Supply		
GWR	Groundwater Recharge		
FRSH	Freshwater Replenishment		
POW	Hydropower Generation		
REC-1	Water Contact Recreation	X	
REC-2	Non-Contact Water Recreation	X	
BIOL	Preservation of Biological Habitats		
WARM	Warm Fresh-Water Habitat	X	
COLD	Cold Fresh-Water Habitat	X	
WILD	Wildlife Habitat	X	
RARE	Rare, Threatened, or Endangered Species		
SPWN	Spawning, Reproduction, and/or Early Dev.		

Notes: O Potential beneficial uses.
X Existing beneficial uses.

The Basin Plan established the following surface and groundwater quality objectives for the Escondido Creek HA (904.60) of the Carlsbad Hydrologic Unit (904.00) HU:

Basin Plan Water Quality Objectives		
CONSTITUENT	Concentration not to be exceeded more than 10 percent of the time during any one year period (mg/l or as noted)	
	Inland Surface Water HSA 904.60	**Groundwater** HA 904.62
Total Dissolved Solids	500	1000
Chloride	250	300
Percent Sodium	60%	60%
Sulfate	250	400
Nitrate (as NO_3)	-----	10
Nitrogen and Phosphorus	*	-----
Iron	0.3	0.3
Manganese		0.05

Basin Plan Water Quality Objectives (continued)		
CONSTITUENT	Concentration not to be exceeded more than 10 percent of the time during any one year period (mg/l or as noted)	
	Inland Surface Water HSA 904.60	**Groundwater** HA 904.62
Methylene Blue Active Substances	0.5	0.5
Boron	0.75	0.75
Odor	None	None
Turbidity	20 NTU	5 NTU
Color	20 Units	15 Units
Fluoride	1.0	1.0

Notes: mg/l = milligrams per liter
NTU = Nephelometric turbidity units

* Concentrations of nitrogen and phosphorus, by themselves or in combination with other nutrients, shall be maintained at levels below those which stimulate algae and emergent plant growth. Threshold total Phosphorus (P) concentrations shall not exceed 0.05 mg/l in any stream at the point where it enters any standing body of water, nor 0.025 mg/l in any standing body of water. A desired goal in order to prevent plant nuisances in streams and other flowing waters appears to be 0.1 mg/l total P. These values are not to be exceeded more than 10% of the time unless studies of the specific water body in question clearly show that water quality objective changes are permissible and changes are approved by the Regional Board. Analogous threshold values have not been set for nitrogen compounds; however, natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ratio of N:P = 10:1 shall be used.

BASIS FOR TENTATIVE WASTE DISCHARGE REQUIREMENTS

1. Water Quality Control Plan for the San Diego Basin (9) conditions for waiving waste discharge requirements for green waste composting and processing, or grinding facilities.

2. Water Quality Control Plan for the San Diego Basin (9) conditions for waiving waste discharge requirements for manure composting and soil amendment operations.

3. Water Quality Control Plan for the San Diego Basin (9) conditions for waiving waste discharge requirements for agricultural irrigation water.

4. State Water Resource Control Board Water Quality Order No. 97-03-DWQ, NPDES Permit No.CAS000001 *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities*.

5. Title 27 (*Combined SWRCB/CIWMB Regulations*), Division 2 (*Solid Waste*), Chapter 7, Subchapter 2 (*Confined Animals*).

6. Commonwealth of Pennsylvania, Department of Environmental Protection, *Best Practices for Environmental Protection in the Mushroom Farm Community*, December 1997.

MONITORING AND REPORTING REQUIREMENTS

Requirements for monitoring and reporting for the mushroom farm are consistent with the requirements prescribed by the State Industrial Storm Permit (Order No. 97-03-DWQ).

WRITTEN COMMENTS

Interested persons are invited to submit written comments upon these waste discharge requirements. Comments should be submitted either in person during business hours or by mail to:

Robert Morris
California Regional Water Quality Control Board
9174 Sky Park Court
San Diego, California 92123-4340

All written comments received by April 24, 2002 will be considered in the formulation of determinations.

PUBLIC HEARING

Tentative Order No. The San Diego Regional Board at a public hearing on May 8, 2002 will consider R9-2002-0115**, starting at 9:00 a.m. in the Regional Board auditorium located at 9174 Sky Park Court, San Diego.**

For additional information, interested persons may contact Robert Morris at (858) 467-2962 or e-mail: morrb@rb9.swrcb.ca.gov

Copies of the tentative waste discharge requirements and other documents (other than those the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying according to the following schedule (except holidays):

Monday through Friday: 8:30 a.m. to 5:00 a.m.

WDR REVIEW

Any person may petition the State Board to review the decision of the Regional Board regarding the final WDR. A petition must be made within 30 days of the Regional Board hearing.